

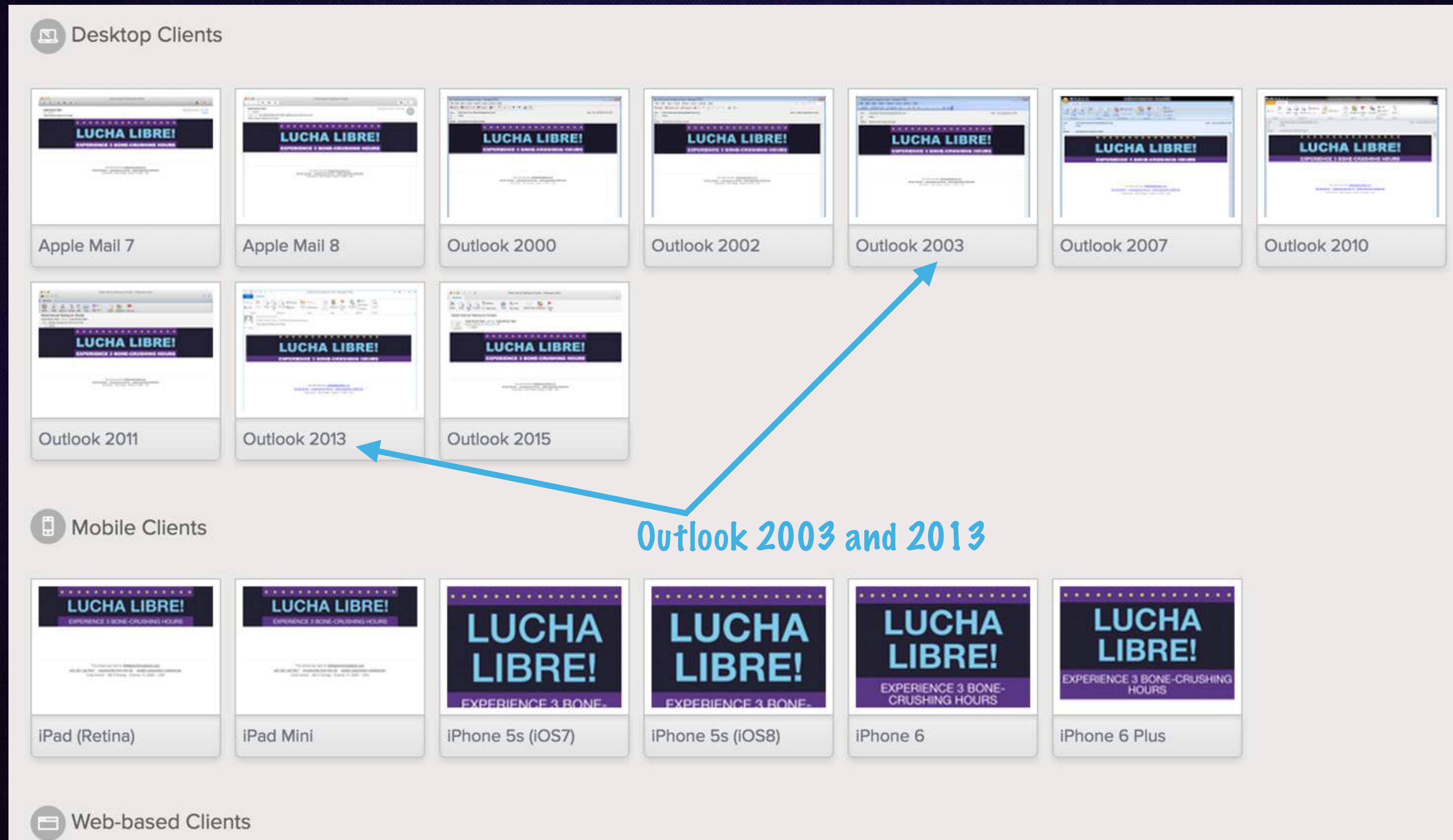


UNMASKING HTML EMAILS

Level 2 - Tables for Layout

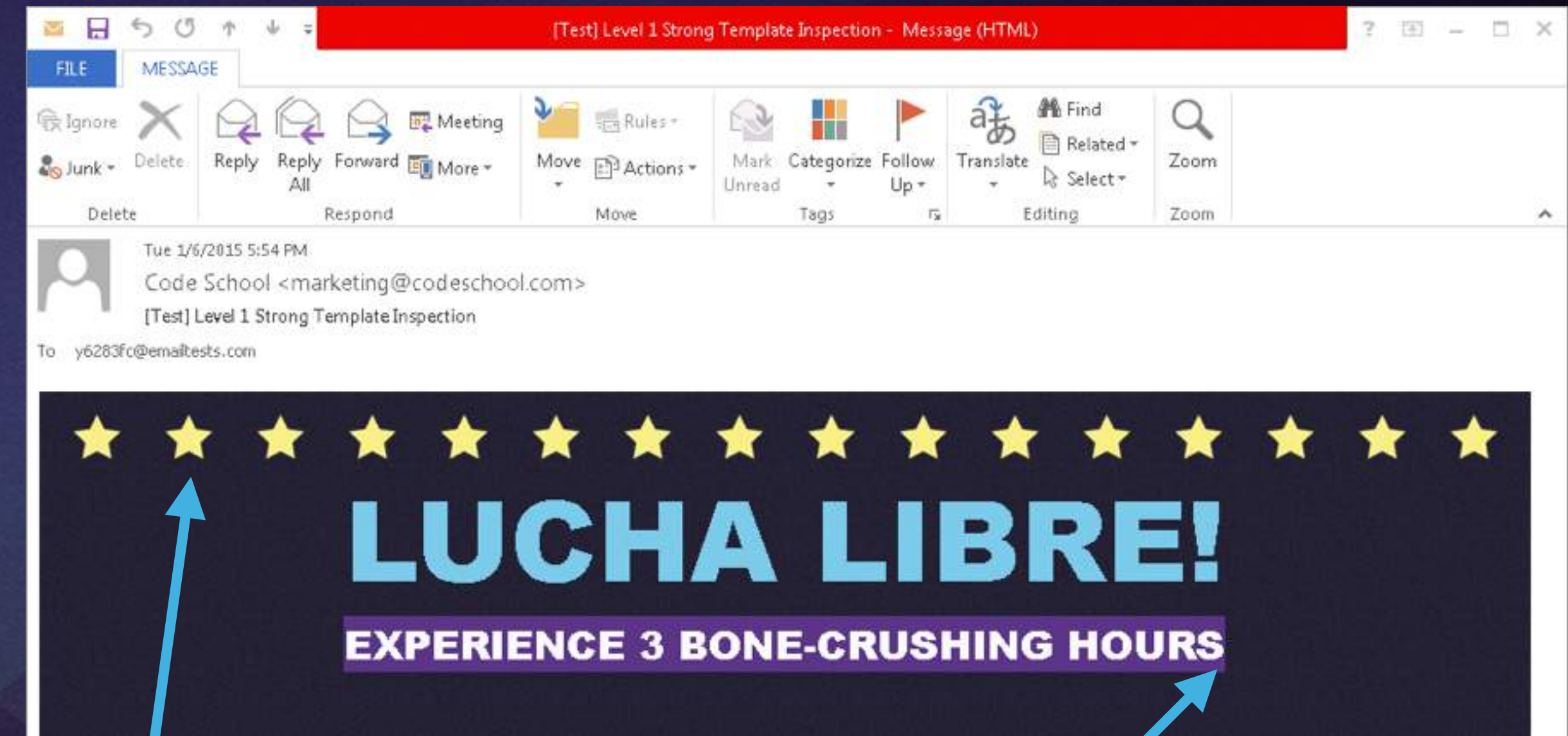
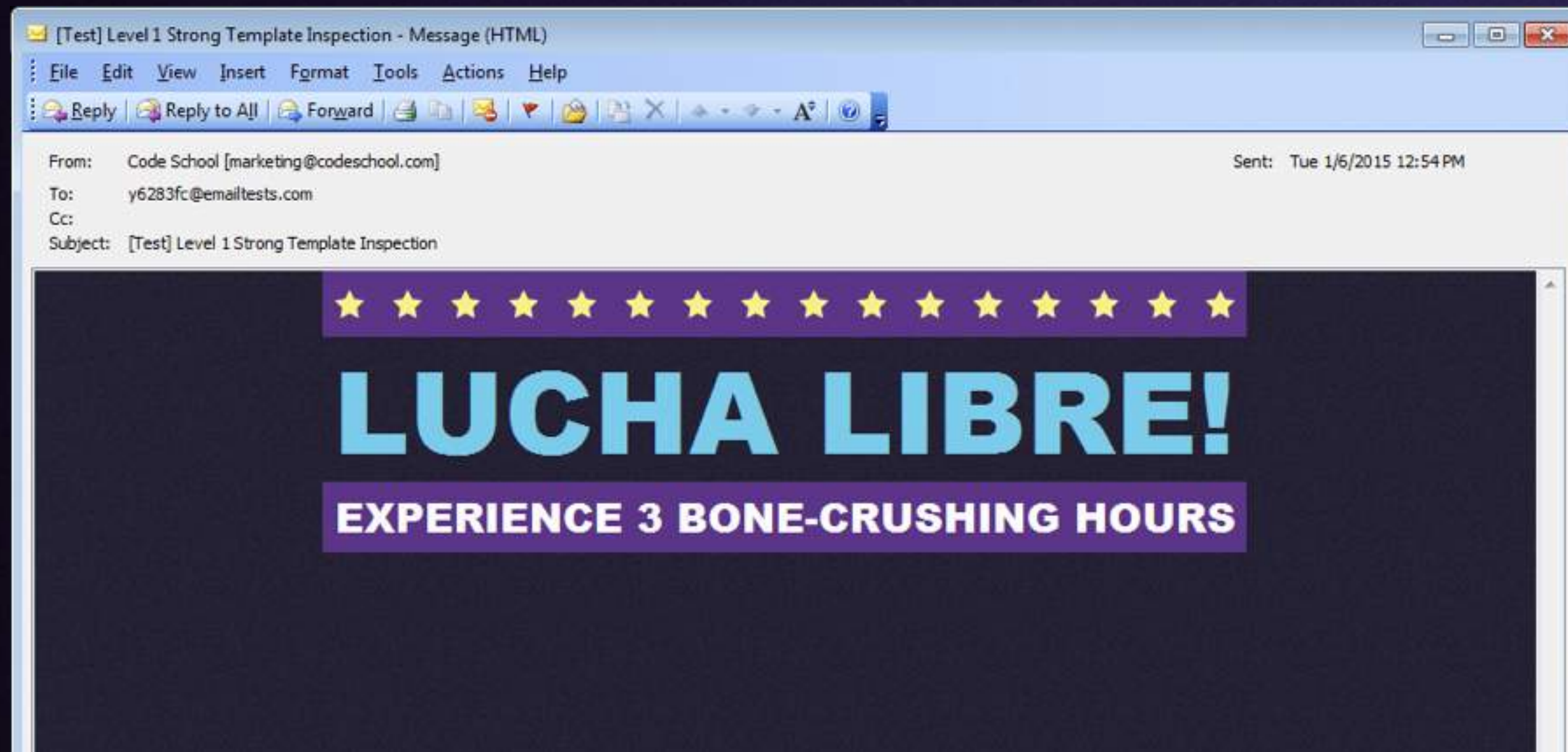
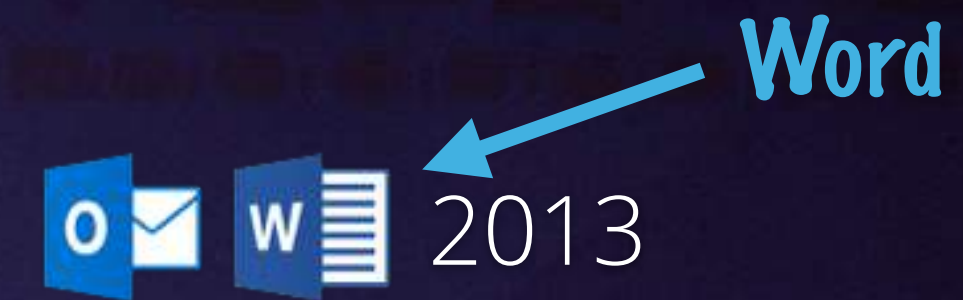
Automated testing in multiple clients

Using a service, we see results for multiple clients very quickly.



The Microsoft Word rendering engine

Outlook 2007, 2010, and 2013 use Word to render HTML emails.



Width is incorrect

Padding is missing

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Word lacks box model and position support

The necessities for controlling layout are not supported on most HTML elements in Word.

	Height	Display	Float	Position	Width	Padding
Outlook 2007-2013	✗	✗	✗	✗	!	!

Not supported on <div> and <p>

Use tables for layout when CSS isn't available

With Word as a rendering engine, layout CSS doesn't exist.



“Note: Prior to the creation of CSS, HTML `<table>` elements were often used as a method for page layout. This usage has been discouraged since HTML 4, and the `<table>` element should not be used for layout purposes.”

- <https://developer.mozilla.org/en-US/docs/Web/HTML/Element/table>

Use simplified tables for layout

Simplification means only using `<table>`, `<tr>`, and `<td>`.

```
<table>
  <thead>
    <th>Rank</th>
    ...
  <tbody>
    <tr>
      <td>#1</td>
      ...
```



Rank	Client	Market Share
#1	Apple iPhone	28%
#2	Gmail	16%
#3	Apple iPad	13%
#4	Outlook	9%
#5	Apple Mail	8%



```
<table>
  <tr>
    <td>Rank</td>
    ...
  <tr>
    <td>#1</td>
    ...
```



No default type or background colors

Rank	Client	Market Share
#1	Apple iPhone	28%
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Reset default spacing

Default values in clients will affect layouts, but attributes can be used to normalize them across clients.

2px cellpadding

2px cellspacing

Rank	Client	Market Share
#1	Apple iPhone	28%
#2	Gmail	16%
#3	Apple iPad	13%
#4	Outlook	9%
#5	Apple Mail	8%



2px cellspacing

No extra spacing

```
<table border="0"
  cellpadding="0"
  cellspacing="0">
  <tr>
    <td>Rank</td>
    ...
```



Rank	Client	Market Share
#1	Apple iPhone	28%
#2	Gmail	16%
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#4	Outlook	9%
#5	Apple Mail	8%



Use single cell tables for containers

This basic table will be used to contain content.

```
<table border="0" cellpadding="0" cellspacing="0">
  <tr>
    <td>
      <!-- Content -->
    </td>
  </tr>
</table>
```

For brevity in examples, we'll write like this: "**<table ... >**"

Adding content to tables

All content must go into a table cell.

email.html

```
...  
<table ... width="600">  
  <tr>  
    <td>  
      <div ... >  
        <div ... >  
          <img ... />  
          <h1 ... >Lucha Libre</h1>  
          <p ... >Experience 3 Bone-  
Crushing Hours</p>  
        </div>  
      </div>  
    </td>  
  </tr>  
</table>  
...
```

Image styles are not rendered



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Elements need to be separated into rows and cells

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1 table
3 rows, each with 1 cell

Organize content with table elements

Use rows and table cells for separating content.

email.html



```
...  
<table ... width="600">  
  <tr>  
    <td>  
        
    </td>  
  </tr>  
  <tr>  
    <td>  
      Lucha Libre! ← instead of <h1>  
    </td>  
  </tr>  
  <tr>  
    <td>  
      Experience 3 Bone-Crushing Hours ← Instead of <p>  
    </td>  
  </tr>  
</table>  
...
```



Base styles to build upon

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Organize content with table elements

Use rows and table cells for separating content.

email.html



```
...  
<table ... width="600">  
  <tr>  
    <td>  
        
    </td>  
  </tr>  
</table>
```



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Styling the stars image

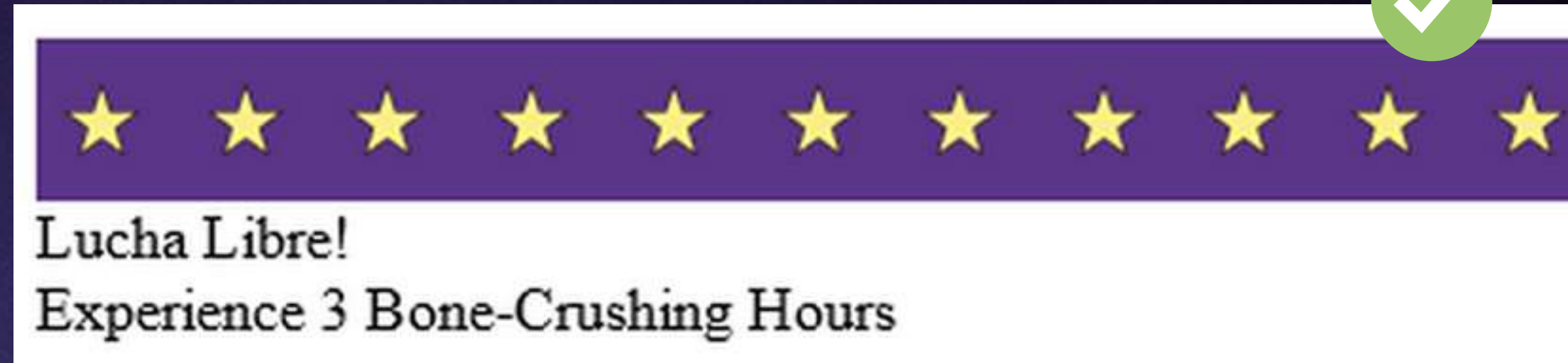
Styles that Word doesn't support for images are set on the table cell.

email.html



```
...  
<table ... >  
  <tr>  
    <td style="background-color: #5b3885;  
              padding: 12px 0;" >  
        
    </td>  
  </tr>  
  ...
```

Be cautious of layout CSS that could impact other clients



Styling a header without using <H1>

Type styles are applied to the containing cell.

email.html

```
...  
<table ... >  
  ...  
  <tr>  
    <td style="  
      color: #7fcce9;  
      font-family: 'Arial Black';  
      font-size: 74px;  
      line-height: 74px;  
      padding: 5px 0 10px 0;  
      text-transform: uppercase;">  
      Lucha Libre!</td>  
  </tr>  
  ...
```



Styling text in a container

Type and container styles are applied to the table cell.

email.html



```
...  
<table ... >  
  ...  
  <tr>  
    <td style="  
      background: #5b3885;  
      color: #fcfbfd;  
      font-family: 'Arial Black';  
      font-size: 26px;  
      line-height: 26px;  
      padding: 10px 0;  
      text-transform: uppercase;">  
      Experience 3 Bone-Crushing  
Hours</td>  
  </tr>  
  ...
```



Centering all text

Some styles that can be applied to all text can be applied to the container table.

email.html



```
...  
<table border="0"  
  cellpadding="0"  
  cellspacing="0"  
  style="text-align: center;"  
  width="600">  
  ...  
</table>  
...
```



! Be cautious of client-applied styles.

Some webmail clients add text styles to cells

Gmail sets the font family to Arial and AOL sets cell color to black.



```
body, td, input, textarea, select {  
  margin: 0;  
  font-family: arial, sans-serif;  
}
```

Gmail sets Arial as a font family



▼ <tr>	Styles	Computed >>
<pre><td style="background: #5b3885; color: #fcfbfd; 'Arial Black'; size: 26px; height: 26px; margin: 0; padding: 10px 0; text-transform: uppercase;"> Experience 3 Bone- Crushing Hours</td> </tr> </tbody> </table> <center>...</center></pre>		<pre>element.style { background: #5b3885; color: #fcfbfd; font-family: 'Arial Black'; font-size: 26px; line-height: 26px; margin: 0; padding: 10px 0; text-transform: uppercase; } #AOLMsgPart_1_309b24da-a112-4e6f-8359-853caa9c5ae1 td { color: black;</pre>

AOL sets the color to black

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Aligning the content table

The HTML attribute align is used to position tables in their containing element.

email.html



```
...  
<table ...  
  align="center"  
  border="0"  
  cellpadding="0"  
  cellspacing="0"  
  width="600">  
  ...  
</table>  
...
```

Use align instead of margin



Table is centered

Adding a background

Use a wrapper table around the content with the background.

email.html



```
...  
<body ... >  
  <table ...  
    style="  
      background-color: #211f31;  
      background-image: url('bg-  
texture.png');"  
    width="100%" >  
    <tr>  
      <td>  
        <table ... >  
          ...  
        </td>  
      </tr>  
    </table>  
  </body>  
  ...
```

Our content table with 3 rows



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Test results with tables

Layout issues are fixed in all clients.



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We'll fix line height later



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